



COUNTY OF SAN DIEGO  
**Great Government Through the General Management System – Quality, Timeliness, Value**  
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

BUILDING MAINTENANCE ENGINEER ASSISTANT  
BUILDING MAINTENANCE ENGINEER

Class No. 006200  
Class No. 005884

■ CLASSIFICATION PURPOSE

To operate, maintain, and repair electrical and mechanical systems of County buildings and facilities including electrical, mechanical, heating, ventilating, air conditioning, and plumbing systems; perform the on-going maintenance, remodeling and safety functions at various County facilities; and to perform related work.

■ DISTINGUISHING CHARACTERISTICS

Positions in this class are allocated to departments requiring continuous building and facilities maintenance.

Building Maintenance Engineer Assistant:

This is the entry-level class in the Building Maintenance Engineer series. Under general supervision, a Building Maintenance Engineer Assistant performs semi-skilled tasks assisting Building Maintenance Engineers in operating, maintaining, and repairing a variety of building/facility systems. Incumbents are expected to work on progressively more difficult assignments with increasing independence as greater experience and skill is gained.

Building Maintenance Engineer:

This is the journey-level class in Building Maintenance Engineer series. Under direction, Building Maintenance Engineers report to a Building Maintenance Supervisor, or other supervisory staff and are responsible for independently operating, maintaining, and repairing a variety of building or facility systems. This class differs from the next higher class, Building Maintenance Supervisor, in that the latter is a first-line supervisor responsible for the supervision, coordination, training and safety of subordinates.

■ FUNCTIONS

**The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such duties are a logical assignment for the position.**

Building Maintenance Engineer Assistant

Essential Functions:

1. Provides direct assistance to Building Maintenance Engineers or other repair/maintenance staff in installing, maintaining, and repairing high and low-pressure boilers, furnaces, water heaters, pumps, generators, compressors, steam lines, water lines, and gas lines.
2. Performs plumbing and electrical repairs.
3. Modifies existing heating, ventilating, and air conditioning systems.
4. Repairs electrical appliances and broken fixtures.
5. Maintains and repairs institutional locking systems.
6. Repairs specialized hospital, laboratory, laundry, and other equipment.
7. Reviews and interprets working drawings and blueprints for mechanical and electrical building operating systems and equipment.
8. Performs minor maintenance and repair tasks.

9. Provides courteous, high quality service to members of the public by personally responding to requests for service or appropriate referral.

#### Building Maintenance Engineer

##### Essential Functions:

All of the functions listed above and:

1. Installs, maintains, and repairs high and low-pressure boilers, furnaces, water heaters, pumps, generators, compressors, steam lines, water lines, and gas lines.
2. Plans, coordinates, and performs the on-going maintenance, remodeling and safety functions at various County locations.
3. Performs the more difficult carpentry and painting repair work such as performing minor modifications and maintenance on modular furniture and workstations, removing and replacing walls and doors, building shelves, replacing overhead tiles, repairing roof leaks, and painting and striping facility parking lots/spaces.
4. Performs electrical maintenance work such as disconnecting, replacing and rerouting electrical systems, as well as wall switches and plug receptacles.
5. Identifies, diagnoses, and corrects facility operating systems problems.
6. Repairs a variety of metals using welding equipment.
7. Determines necessary equipment and materials, and purchases such as items using a County credit card.
8. Tests and treats hot water heating system and chill water system in heating and air conditioning systems.
9. Drives automotive equipment in the performance of duties.
10. Ensures conformance to ADA compliance and CAL-OSHA and safety regulations.
11. Maintains a "work in progress" tracking log.
12. May provide training and technical guidance to Building Maintenance Engineer Assistants or subordinate staff.
13. Communicates with professional, governmental, and civic businesspersons and organizations.

#### ■ KNOWLEDGE, SKILLS AND ABILITIES

##### Knowledge of:

- Principles and practices of facilities maintenance as they relate to design, construction, and operation of various pumps, motors, buildings, HVAC and plumbing systems.
- Maintenance and repair techniques for electrical and mechanical facilities operating systems.
- Operation and use of power and hand tools, equipment, and instruments.
- Specification conformance of parts and materials used in preventive maintenance and repair or replacement of mechanical and electrical building operating systems.
- Occupational safety practices (ergonomic workstations) used in performing maintenance and repair tasks.
- Mechanical, electrical and instrumentation maintenance procedures.
- Water chemistry for testing and treatment of closed and open loop water systems in HVAC.
- Principles of automated building control systems.
- Federal, state, and county laws and safety regulations (e.g., ADA compliance, CAL-OSHA).
- Telephone, office, and online etiquette.
- County customer service objectives and strategies.

##### Skills and Abilities to:

- Maintain and repair facility electrical and mechanical operating systems including: electrical, mechanical, plumbing, air conditioning, heating and ventilation.
- Identify, diagnose, and correct facility operating system problems.
- Use various equipment (including welding tools) to implement repairs.
- Interpret drawings and blueprints for mechanical, electrical and general facilities operating systems.
- Provide training and technical guidance to subordinate staff.
- Repair hospital, laboratory, laundry, or other specialized equipment.
- Maintain and repair locking systems in various institutions.
- Prioritize work requests and orders according to departmental needs.

- Communicate effectively with a variety of individuals representing diverse cultures and backgrounds and function calmly in stressful situations, which require a high degree of sensitivity, tact and diplomacy.
- Assess the customer's immediate needs and ensure customer's receipt of needed services through personal service or referral.
- Provide prompt, efficient and responsive service.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

## ■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

### Building Maintenance Engineer Assistant:

1. Three (3) years of experience operating, maintaining, or repairing building/facility electrical, mechanical, heating, ventilation, air conditioning (HVAC), or plumbing systems. Previous experience must have included identifying or troubleshooting system problems and reading plans or blueprints.

### Building Maintenance Engineer:

1. Five (5) years work experience operating, maintaining, or repairing building/facility electrical, mechanical, HVAC or plumbing systems, OR
2. Four (4) years of experience operating, maintaining, or repairing building/facility electrical, mechanical, HVAC or plumbing systems; AND at least one certificate in either electricity, plumbing, or HVAC. The certificate must be equivalent to completion of one semester of coursework at a college, vocational school, Regional Occupational Program, or equivalent program, OR
3. Three (3) years operating, maintaining, or repairing building/facility electrical, mechanical, or plumbing systems; AND two (2) certificates as identified above.

## ■ ESSENTIAL PHYSICAL CHARACTERISTICS

**The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.**

Frequent: walking, standing, neck and waist bending, climbing, repetitive use of hands, power hand grasping, and reaching above and below shoulder level. Occasional: sitting, squatting, crawling, kneeling, neck and waist twisting, and hand pushing and pulling. Operating assigned equipment and machinery. Some positions in this classification will be required to lift heavy objects weighing up to 50 pounds, and occasionally weighing up to 75 pounds.

## ■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

### License

Valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in this class may be required to use their own vehicle.

### Certification/Registration

None Required.

### Working Conditions

Subject to weekend work, standby and emergency call back. Some facilities operate 24 hours per day, 7 days a week. Exposure to weather, dust, fumes, electrical currents and machine noises. May be exposed to chemicals and biohazards of building maintenance i.e., lead, asbestos, blood pathogens, sewage, and hospital waste. Wearing of protective breathing apparatus is required.

### Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in this class shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

**New: March 4, 1966 (Class No. 005844)**

**New: June 25, 1982 (Class No. 006200)**

**Revised: March 12, 2003**

**Reviewed: Spring 2003**

**Revised: March 13, 2004**

**Revised: March 31, 2006**

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Building Maintenance Engineer Assistant (Class No. 006200)  
Building Maintenance Engineer (Class No. 005844)

Union Code: CR  
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Variable Entry: Y  
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